

CLAIMS

1. A test device for testing of analyte concentration in a fluid to be applied thereto, the device comprising:

5 a) a plurality of test members arranged in at least one stack, each of said test members carrying reagent means for producing an electrical signal in response to the concentration of analyte in an applied fluid, each of said test members having a plurality of electrode tracks for
10 transmitting said electrical signal;

b) a housing having electrodes disposed therein for engaging with the electrode tracks on a test member at an engagement location;

15 c) a meter connected to the said electrodes and disposed at least partly in the housing, having electronics means for producing a signal output which is dependent on the electrical signal from a test member when the test member is engaged with the said electrodes;

20 d) a pusher which is adapted to push a single test member from the stack and into the engagement location where it can engage with the said electrodes and where the test member can be accessed to apply a fluid thereto;

25 e) an actuation member operably connected to the pusher, the said actuation member being operable by a user to move the pusher;

f) the or each stack of test members being enclosed in a magazine which is initially sealed by a moisture impermeable seal; and

30 g) wherein means are provided for breaking the said seal and permitting a test member to be pushed from the magazine by the pusher when the first test member from the said magazine is to be used.

2. A device as claimed in claim 1, wherein the test
35 members are arranged in a plurality of stacks, each one

enclosed in a magazine which is initially sealed by a moisture impermeable seal, the magazines being movable so as to enable each in turn to reach a position in which the pusher can break the seal and push a test member therefrom.

3. A device as claimed in claim 1, wherein operation of the actuation member causes the pusher to engage with the electrodes and bring them into contact with the electrode tracks on the test member when the test member is in the engagement location.

4. A device as claimed in claim 1, wherein further operation of the actuation member causes the pusher to push a test member from the engagement location and eject the test member from the housing.

5. A device as claimed in claim 1, wherein blade means are provided in the housing for cutting the seal to form a slit through which a test member can pass when pushed by the pusher.

6. A device as claimed in claim 5, wherein the blade is fixed, and the magazine is movable so that the slit will be cut when the magazine moves.

7. A device as claimed in claim 1 wherein the pusher is provided with at least one cutting surface for cutting the foil seal.

8. A device as claimed in claim 7, wherein the foil seal is provided with a frangible line of weakness at a location where a test member is to pass through, whereby when a test strip is urged against the said line of weakness by the pusher, the foil will break and permit

passage of the test member.

9. A device as claimed in claim 2, wherein the cartridge is urged by spring means towards a ratchet wheel which has a keyway therein, the cartridge being provided with a plurality of spaced apart location pegs for locating in the keyway and the ratchet wheel only permitting entry of a location peg when the ratchet wheel is in a defined orientation.

10. A device as claimed in claim 9, wherein operation of the actuating member causes indexing of the ratchet wheel.

11. A device as claimed in claim 1, further comprising a sliding member which has an angled slot therein which provides a cam surface that bears against the pusher, whereby movement of the sliding member in a first direction causes movement of the pusher in a second direction.

12. A device as claimed in claim 1, further comprising spring means which urge the stack of test members towards the seal.

13. A device as claimed in claim 1, further comprising means for releasably detaining the pusher when the test member is in the engagement location.

14. A device as claimed in claim 1, further comprising a processor and means for initiating a timer at a predetermined time or when a magazine is first opened, the processor being programmed to provide a visible warning or message if a magazine which is in use exceeds its shelf life or if unopened magazines exceed their shelf life.

15. A test device as claimed in claim 1, wherein the analyte to be tested for is glucose and the fluid to be applied is blood.

5 16. A test device as claimed in claim 2, wherein the magazines are releasably connected together and wherein the housing has an opening through which used magazines will project.

10 18. A test device as claimed in claim 1, wherein each test member in the or each stack comprises a base member having a working area to which the fluid is to be applied, containing the reagent means, and a non-working area adjacent to the working area, wherein the total thickness
15 of the test member in at least a portion of the non-working area is at least as great as the total thickness of the test member in the working area.

20 19. A test device as claimed in claim 18, wherein the total thickness of the test member in at least a part of the non-working area is greater than the total thickness of the test member in the working area.

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